

S Foley

8309

BIOTECH  
SYSTEMS  
BRANCH



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 09/500,904  
Source: 1648  
Date Processed by STIC: 5/3/2001

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MAY 16 2001

TECH CENTER 1600/2900

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

**FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.**

**FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.**

**PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:**

### **Checker Version 3.0**

The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 – 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

Checker Version 3.0 replaces the previous DOS-based version of Checker, and is Y2K-compliant. Checker allows public users to check sequence listings in Computer Readable form (CRF) before submitting them to the United States Patent and Trademark Office (USPTO). Use of Checker prior to filing the sequence listing is expected to result in fewer errored sequence listings, thus saving time and money.

**Checker Version 3.0 can be down loaded from the USPTO website at the following address:**

**<http://www.uspto.gov/web/offices/pac/checker>**

# Raw Sequence Listing Error Summary

## ERROR DETECTED SUGGESTED CORRECTION

SERIAL NUMBER: 09/500,904

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

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- 1 \_\_\_\_\_ Wrapped Nucleics      The number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 2 \_\_\_\_\_ Wrapped Aminos      The amino acid number/text at the end of each line "wrapped" down to the next line.  
This may occur if your file was retrieved in a word processor after creating it.  
Please adjust your right margin to .3, as this will prevent "wrapping".
- 3 \_\_\_\_\_ Incorrect Line Length      The rules require that a line not exceed 72 characters in length. This includes spaces.
- 4 \_\_\_\_\_ Misaligned Amino Acid Numbering      The numbering under each 5th amino acid is misaligned. This may be caused by the use of tabs between the numbering. It is recommended to delete any tabs and use spacing between the numbers.
- 5 \_\_\_\_\_ Non-ASCII      This file was not saved in ASCII (DOS) text, as required by the Sequence Rules.  
Please ensure your subsequent submission is saved in ASCII text so that it can be processed.
- 6 \_\_\_\_\_ Variable Length      Sequence(s) \_\_\_\_\_ contain n's or Xaa's which represented more than one residue.  
As per the rules, each n or Xaa can only represent a single residue.  
Please present the maximum number of each residue having variable length and indicate in the (ix) feature section that some may be missing.
- 7 \_\_\_\_\_ PatentIn ver. 2.0 "bug"      A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequence(s) \_\_\_\_\_. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies primarily to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
- 8 \_\_\_\_\_ Skipped Sequences (OLD RULES)      Sequence(s) \_\_\_\_\_ missing. If intentional, please use the following format for each skipped sequence:  
**(2) INFORMATION FOR SEQ ID NO:X:**  
**(i) SEQUENCE CHARACTERISTICS:**(Do not insert any headings under "SEQUENCE CHARACTERISTICS")  
**(xi) SEQUENCE DESCRIPTION:SEQ ID NO:X:**  
**This sequence is intentionally skipped**  
  
Please also adjust the "(iii) NUMBER OF SEQUENCES:" response to include the skipped sequence(s).
- 9 \_\_\_\_\_ Skipped Sequences (NEW RULES)      Sequence(s) \_\_\_\_\_ missing. If intentional, please use the following format for each skipped sequence.  
**<210> sequence id number**  
**<400> sequence id number**  
**000**
- 10 \_\_\_\_\_ Use of n's or Xaa's (NEW RULES)      Use of n's and/or Xaa's have been detected in the Sequence Listing.  
Use of <220> to <223> is MANDATORY if n's or Xaa's are present.  
In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 11 \_\_\_\_\_ Use of "Artificial" (NEW RULES)      Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules.  
Valid response is Artificial Sequence.
- 12 \_\_\_\_\_ Use of <220>Feature (NEW RULES)      Sequence(s) \_\_\_\_\_ are missing the <220>Feature and associated headings.  
Use of <220> to <223> is MANDATORY if <213>ORGANISM is "Artificial Sequence" or "Unknown"  
Please explain source of genetic material in <220> to <223> section.  
(See "Federal Register," 6/01/98, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of new Rules)
- 13 \_\_\_\_\_ PatentIn ver. 2.0 "bug"      Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing).  
Instead, please use "File Manager" or any other means to copy file to floppy disk.

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1648

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RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/500,904

DATE: 05/03/2001  
 TIME: 16:23:40

Input Set : A:\Om161ci1.app  
 Output Set: N:\CRF3\05032001\I500904.raw

3 <110> APPLICANT: Harley, John B.  
 4 James, Judith A.  
 5 Kaufman, Kenneth M.  
 7 <120> TITLE OF INVENTION: Diagnostics and Therapy of Epstein-Barr Virus in  
 8 Autoimmune Disorders  
 10 <130> FILE REFERENCE: OMRF 161 CIP  
 12 <140> CURRENT APPLICATION NUMBER: 09/500,904  
 13 <141> CURRENT FILING DATE: 2000-02-09  
 15 <160> NUMBER OF SEQ ID NOS: 113  
 17 <170> SOFTWARE: PatentIn Ver. 2.1  
 19 <210> SEQ ID NO: 1  
 20 <211> LENGTH: 7  
 21 <212> TYPE: PRT  
 22 <213> ORGANISM: Artificial Sequence  
 24 <220> FEATURE:  
 25 <223> OTHER INFORMATION: Description of Artificial Sequence: Epstein-Barr  
 26 virus Nuclear Antigen-1 Protein  
 28 <400> SEQUENCE: 1  
 29 Pro Pro Pro Gly Arg Arg Pro  
 30 1 5  
 33 <210> SEQ ID NO: 2  
 34 <211> LENGTH: 8  
 35 <212> TYPE: PRT  
 36 <213> ORGANISM: Artificial Sequence  
 38 <220> FEATURE:  
 39 <223> OTHER INFORMATION: Description of Artificial Sequence: Epstein-Barr  
 40 virus Nuclear Antigen-1 Protein  
 42 <400> SEQUENCE: 2  
 43 Gly Arg Gly Arg Gly Arg Gly Gly  
 44 1 5  
 47 <210> SEQ ID NO: 3  
 48 <211> LENGTH: 7  
 49 <212> TYPE: PRT  
 50 <213> ORGANISM: Artificial Sequence  
 52 <220> FEATURE:  
 53 <223> OTHER INFORMATION: Description of Artificial Sequence: Epstein-Barr  
 54 virus Nuclear Antigen-1 Protein  
 56 <400> SEQUENCE: 3  
 57 Arg Gly Arg Gly Arg Glu Lys  
 58 1 5  
 61 <210> SEQ ID NO: 4  
 62 <211> LENGTH: 8  
 63 <212> TYPE: PRT  
 64 <213> ORGANISM: Artificial Sequence  
 66 <220> FEATURE:  
 67 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide  
 69 <400> SEQUENCE: 4

Does Not Comply  
 Corrected Diskette Needed

Octapeptide

give source  
 of genetic material  
 (see circled  
 portion of item 12  
 on Eva summary  
 sheet) 5/3/01

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/500,904

DATE: 05/03/2001  
TIME: 16:23:40

Input Set : A:\Oml61cil.app  
Output Set: N:\CRF3\05032001\I500904.raw

70 Pro Pro Pro Gly Met Arg Pro Pro  
71 1 5  
74 <210> SEQ ID NO: 5  
75 <211> LENGTH: 8  
76 <212> TYPE: PRT  
77 <213> ORGANISM: Artificial Sequence  
79 <220> FEATURE:  
80 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide  
82 <400> SEQUENCE: 5  
83 Pro Pro Pro Gly Ile Arg Gly Pro  
84 1 5  
87 <210> SEQ ID NO: 6  
88 <211> LENGTH: 8  
89 <212> TYPE: PRT  
90 <213> ORGANISM: Artificial Sequence  
92 <220> FEATURE:  
93 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide  
95 <400> SEQUENCE: 6  
96 Pro Ala Pro Gly Met Arg Pro Pro  
97 1 5  
100 <210> SEQ ID NO: 7  
101 <211> LENGTH: 24  
102 <212> TYPE: PRT  
103 <213> ORGANISM: Artificial Sequence  
105 <220> FEATURE:  
106 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide from  
107 Epstein-Barr virus Nuclear Antigen-1  
109 <400> SEQUENCE: 7  
110 Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala Gly Ala  
111 1 5 10 15  
113 Gly Ala Gly Ala Gly Ala Gly Ala  
114 20  
117 <210> SEQ ID NO: 8  
118 <211> LENGTH: 8  
119 <212> TYPE: PRT  
120 <213> ORGANISM: Artificial Sequence  
122 <220> FEATURE:  
123 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide  
125 <400> SEQUENCE: 8  
126 Pro Pro Pro Gly Met Arg Gly Pro  
127 1 5  
130 <210> SEQ ID NO: 9  
131 <211> LENGTH: 26  
132 <212> TYPE: PRT  
133 <213> ORGANISM: Artificial Sequence  
135 <220> FEATURE:  
136 <223> OTHER INFORMATION: Description of Artificial Sequence: Peptide  
138 <400> SEQUENCE: 9  
139 Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg Gly Arg

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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/500,904

DATE: 05/03/2001  
TIME: 16:23:40

Input Set : A:\Oml61cil.app  
Output Set: N:\CRF3\05032001\I500904.raw

```
140      1          5          10          15
142 Gly Arg Gly Arg Gly Gly Pro Arg Arg Arg
143              20          25
146 <210> SEQ ID NO: 10
147 <211> LENGTH: 9
148 <212> TYPE: PRT
149 <213> ORGANISM: Artificial Sequence
151 <220> FEATURE:
152 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
154 <400> SEQUENCE: 10
155 Gly Pro Pro Pro Gly Met Arg Pro Pro
156      1          5
159 <210> SEQ ID NO: 11
160 <211> LENGTH: 7
161 <212> TYPE: PRT
162 <213> ORGANISM: Artificial Sequence
164 <220> FEATURE:
165 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
167 <400> SEQUENCE: 11
168 Ser Pro Leu Ser Thr Leu Leu
169      1          5
172 <210> SEQ ID NO: 12
173 <211> LENGTH: 7
174 <212> TYPE: PRT
175 <213> ORGANISM: Artificial Sequence
177 <220> FEATURE:
178 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
180 <400> SEQUENCE: 12
181 Lys Ile Gly Phe Pro His Ile
182      1          5
185 <210> SEQ ID NO: 13
186 <211> LENGTH: 7
187 <212> TYPE: PRT
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
193 <400> SEQUENCE: 13
194 Ile Pro Arg Pro Leu Asp Tyr
195      1          5
198 <210> SEQ ID NO: 14
199 <211> LENGTH: 7
200 <212> TYPE: PRT
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
206 <400> SEQUENCE: 14
207 Met Lys Leu Lys His Pro Pro
208      1          5
211 <210> SEQ ID NO: 15
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RAW SEQUENCE LISTING                      DATE: 05/03/2001  
PATENT APPLICATION: US/09/500,904              TIME: 16:23:40

Input Set : A:\Oml61cil.app  
Output Set: N:\CRF3\05032001\I500904.raw

212 <211> LENGTH: 7  
213 <212> TYPE: PRT  
214 <213> ORGANISM: Artificial Sequence  
216 <220> FEATURE:  
217 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage  
219 <400> SEQUENCE: 15  
220 Ile Leu Pro Pro Pro Gly Tyr  
221    1                      5  
224 <210> SEQ ID NO: 16  
225 <211> LENGTH: 7  
226 <212> TYPE: PRT  
227 <213> ORGANISM: Artificial Sequence  
229 <220> FEATURE:  
230 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage  
232 <400> SEQUENCE: 16  
233 Ala Val Ile His Arg Pro Pro  
234    1                      5  
237 <210> SEQ ID NO: 17  
238 <211> LENGTH: 7  
239 <212> TYPE: PRT  
240 <213> ORGANISM: Artificial Sequence  
242 <220> FEATURE:  
243 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage  
245 <400> SEQUENCE: 17  
246 Ala Leu Ile Gln Arg Pro Pro  
247    1                      5  
250 <210> SEQ ID NO: 18  
251 <211> LENGTH: 7  
252 <212> TYPE: PRT  
253 <213> ORGANISM: Artificial Sequence  
255 <220> FEATURE:  
256 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage  
258 <400> SEQUENCE: 18  
259 Val Pro Leu Thr Val Leu Leu  
260    1                      5  
263 <210> SEQ ID NO: 19  
264 <211> LENGTH: 6  
265 <212> TYPE: PRT  
266 <213> ORGANISM: Artificial Sequence  
268 <220> FEATURE:  
269 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage  
271 <400> SEQUENCE: 19  
272 Ser Pro Pro Glu Leu Lys  
273    1                      5  
276 <210> SEQ ID NO: 20  
277 <211> LENGTH: 7  
278 <212> TYPE: PRT  
279 <213> ORGANISM: Artificial Sequence  
281 <220> FEATURE:

RAW SEQUENCE LISTING                      DATE: 05/03/2001  
 PATENT APPLICATION: US/09/500,904                      TIME: 16:23:40

Input Set : A:\Oml61cil.app  
 Output Set: N:\CRF3\05032001\I500904.raw

```

282 <223> OTHER INFORMATION: Description of Artificial Sequence: Phage
284 <400> SEQUENCE: 20
285 Lys Phe Leu Ala Pro Leu Gln
286   1           5
289 <210> SEQ ID NO: 21
290 <211> LENGTH: 18
291 <212> TYPE: DNA
292 <213> ORGANISM: Artificial Sequence
294 <220> FEATURE:
295 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
297 <400> SEQUENCE: 21
298 ccagaggttaa gtggactt                                     18
301 <210> SEQ ID NO: 22
302 <211> LENGTH: 18
303 <212> TYPE: DNA
304 <213> ORGANISM: Artificial Sequence
306 <220> FEATURE:
307 <223> OTHER INFORMATION: Description of Artificial Sequence: Primer
309 <400> SEQUENCE: 22
310 gaccggtgcc ttcttagg                                     18
313 <210> SEQ ID NO: 23
314 <211> LENGTH: 58
315 <212> TYPE: DNA
316 <213> ORGANISM: Artificial Sequence
318 <220> FEATURE:
319 <223> OTHER INFORMATION: Description of Artificial Sequence: Probe
321 <400> SEQUENCE: 23
322 aagacgattc ggggtgtgag gtgggtgtggg tccgtgtgtg atgtgtgtgg gtgggcag   58
325 <210> SEQ ID NO: 24
326 <211> LENGTH: 32
327 <212> TYPE: PRT
328 <213> ORGANISM: Artificial Sequence
330 <220> FEATURE:
331 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide
332   from Epstein-Barr virus Nuclear Antigen-1
334 <400> SEQUENCE: 24
335 Gly Gly Ser Gly Pro Gln Arg Arg Gly Gly Asp Asn His Gly Arg Gly
336   1           5           10           15
338 Arg Gly Arg Gly Arg Gly Arg Gly Gly Arg Pro Gly Ala Pro Gly
339   20           25           30
345 <210> SEQ ID NO: 25
346 <211> LENGTH: 20
347 <212> TYPE: PRT
348 <213> ORGANISM: Artificial Sequence
350 <220> FEATURE:
351 <223> OTHER INFORMATION: Description of Artificial Sequence: Octapeptide
352   from Epstein-Barr virus Nuclear Antigen-1
354 <400> SEQUENCE: 25
355 Gly Gly Ser Gly Ser Gly Pro Arg His Arg Asp Gly Val Arg Arg Pro

```

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/500,904

DATE: 05/03/2001

TIME: 16:23:41

Input Set : A:\Om161cil.app

Output Set: N:\CRF3\05032001\I500904.raw

L:1124 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:80  
L:1168 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:83  
L:1217 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:86  
L:1261 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:89  
L:1302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:91



**NOTICE TO COMPLY WITH REQUIREMENTS FOR PATENT APPLICATIONS CONTAINING NUCLEOTIDE SEQUENCE AND/OR AMINO ACID SEQUENCE DISCLOSURES**

Applicant must file the items indicated below within the time period set the Office action to which the Notice is attached to avoid abandonment under 35 U.S.C. § 133 (extensions of time may be obtained under the provisions of 37 CFR 1.136(a)).

The nucleotide and/or amino acid sequence disclosure contained in this application does not comply with the requirements for such a disclosure as set forth in 37 C.F.R. 1.821 - 1.825 for the following reason(s):

- ☒ 1. This application clearly fails to comply with the requirements of 37 C.F.R. 1.821-1.825. Applicant's attention is directed to these regulations, published at 1114 OG 29, May 15, 1990 and at 55 FR 18230, May 1, 1990.
- ☐ 2. This application does not contain, as a separate part of the disclosure on paper copy, a "Sequence Listing" as required by 37 C.F.R. 1.821(c).
- ☒ 3. A copy of the "Sequence Listing" in computer readable form has not been submitted as required by 37 C.F.R. 1.821(e).
- ☐ 4. A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 C.F.R. 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing."
- ☐ 5. The computer readable form that has been filed with this application has been found to be damaged and/or unreadable as indicated on the attached CRF Diskette Problem Report. A Substitute computer readable form must be submitted as required by 37 C.F.R. 1.825(d).
- ☐ 6. The paper copy of the "Sequence Listing" is not the same as the computer readable form of the "Sequence Listing" as required by 37 C.F.R. 1.821(e).
- ☐ 7. Other: \_\_\_\_\_

**Applicant Must Provide:**

- ☒ An initial or substitute computer readable form (CRF) copy of the "Sequence Listing".
- ☐ An initial or substitute paper copy of the "Sequence Listing", as well as an amendment directing its entry into the specification.
- ☒ A statement that the content of the paper and computer readable copies are the same and, where applicable, include no new matter, as required by 37 C.F.R. 1.821(e) or 1.821(f) or 1.821(g) or 1.825(b) or 1.825(d).

For questions regarding compliance to these requirements, please contact:  
For Rules Interpretation, call (703) 308-4216  
For CRF Submission Help, call (703) 308-4212  
PatentIn Software Program Support (SIRA)

Technical Assistance.....703-287-0200  
To Purchase PatentIn Software.....703-306-2600

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